

*Researches on the Structure, Organization, and Classification of the Fossil Reptilia.*—Part IX. Section 3. On *Diademodon*. By H. G. SEELEY, F.R.S.

The author describes fragments of jaws and teeth from Upper Karroo strata at Wonderboom and Aliwal North, collected by R. D. Kannemeyer and Alfred Brown. They may possibly belong to more than one genus; but, in absence of sufficient knowledge of the skull to establish differences, the four species are referred to a new genus, *Diademodon*. Its hinder molar teeth have undivided roots, and low crowns, which are subquadrate or transversely ovate, surrounded by a diadem of low cusps, which are chiefly developed on the external and internal borders, with erenulations or minute cusps on the anterior and posterior margins of these teeth. There is a low central cusp in the middle of the crown from which slight ridges extend chiefly in the transverse direction; but in the type species these ridges take the form of a cross. The species are distinguished by the form of the crown and the details of the cusps. The upper and lower teeth are opposed so as to be evenly worn, but the mandibular teeth are narrower.

These teeth are highly specialized, but distinct in plan from *Tritylodon*, and from all known Reptiles. They closely approximate to some of the higher Mammalia. The author refers *Diademodon* to a division of the Theriodontia in which the teeth become worn with use, which is named Gomphodontia.—*From the Proceedings of the Royal Society.* (Communicated by the Author.)

*Preliminary Diagnosis of a new Gazelle from Algeria.*

By OLDFIELD THOMAS.

The type specimen of the following species has been brought from Algeria by Sir Edmund Loder, and generously presented by him to the National Museum.

*Gazella Loderi*, sp. n.

Size small; general colour very pale sandy, the various gazelle-markings all nearly obsolete. Ears long, whitish. Hoofs narrow and very much elongated. Horns long, very slender, lyrate, widely divergent above.

Hind foot, without hoofs, (c.) 280 millim.; length of fore hoof 64, of hind one 56; basal length of skull 173; horns round curves 330, circumference at base 95.

*Hab.* Sand-dunes of Le Souf, about 100 miles south of Biskra.